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COORDINATED WATERBIRD COUNTS (CWAC)

INFORMATION SHEET No. 6 **APRIL 2009**

SPECIALISED COUNTING TECHNIQUES

Double-counting: The risk of 'double-counting' is difficult to avoid. It applies especially to birds that continually fly around the wetland, or are flushed and fly off ahead of you. The problem is particularly acute where several different observers are simultaneously counting different parts of a large wetland. For example, a single Caspian Tern circling a wetland is likely to be counted by all the teams (and even several times by the same unwary teams!). Similarly, a flock of waders flushed by one team may fly ahead into an area still to be covered, or into another team's area.

The simplest solution is to avoid flushing birds!!

Clues as to whether a bird, or flock of birds, has already been counted come from the sexes, ages and numbers of birds in the flock. Many species show sex and/or age differences in plumage that may be helpful. For example, a flock of five South African Shelducks are flushed, two are males and three are females. Later, another flock of five are seen, but all are males. It is reasonable to assume that these are different flocks, but if the number of females and males were the same in the second flock, it would be safer to assume that they are the same birds.

In many cases, however, it is impossible to completely resolve such dilemmas. There is no substitute for prudence and common sense when faced with such decisions.

The compiler of a wetland count carried out by several teams of observers should examine the counts from each team and search for possible duplications. Discussion with team members, as soon as possible after the count, may help in this regard.

Outer shorelines: Birds along the outer shorelines are usually best counted while the observer walks along the shore. It is advisable to walk quite far inland, so as not to flush the birds on the shoreline. Flushed birds may fly off ahead of you, which complicates the count, as you may 'double-count' them again later further on. It is also often easier to identify species such as waders when they are on the ground, rather than in flight.

When you have to walk along the shore, take care to cause as little disturbance as possible. It is advisable to do your count into the wind, that way the birds that you flush are more likely to fly with the wind, past you, thus minimising double counts further on.

Open water and mudflats: Birds floating on the open water, or feeding on exposed mudflats, are best counted by stopping periodically and scanning, with binoculars or a telescope. Make sure that you systematically scan all areas in this manner. Local features for example poles, fences or perhaps patches of vegetation, etc., can be used to break up large expanses into smaller, more manageable sections that can be counted in turn.

Islands: Birds concentrated on an island should be counted at one time. If the island is very large or high, it may be necessary to circle around it and do several counts of sections of the island. It is not advisable to get onto the island, as this will probably flush the birds.

Reedbeds and tall marshes: Concerning tall, marshy areas, especially reedbeds, many waterbirds will be missed in these habitats. However, species such as moorhens, gallinules, coots, small herons, ducks and rails characteristically feed in open areas close to the reedbeds and then dart for cover at the first sign of danger. When approaching such areas, counters should be particularly alert and try to spot as many of these birds as possible before they conceal themselves. Many of these species, especially coots, moorhens, gallinules and rails, have characteristic vocalizations which they give from within cover. Counters should familiarize themselves with these vocalizations so that individuals heard can be identified and added to the count. Do not, however, broadcast recordings to elicit vocal responses from concealed birds as this is a technique which is difficult to apply consistently.

Aerial species: Several species typically and repeatedly circle wetlands in flight, e.g. terns and gulls. Special care should be taken not to repeatedly count the same individuals of these species, as they may be seen several times during the course of the count. The best way to overcome this problem is to try to view the whole wetland, or as much as possible of it, from a single viewpoint, and do a single count of these birds from there.

Flying waterbirds: It is easier to count a large flock of flying waterbirds by starting at the 'back', rather than at the 'front', as the observer can then regulate the speed with which the birds pass through the field of view of the binoculars.

Large, dense concentrations of waterbirds: Large, dense concentrations of waterbirds, especially multi-species roosts formed at high tide in estuaries and lagoons, should be counted in the following manner:

- scan the whole area containing the concentration of birds, using binoculars, to ensure that all the major sub-flocks are located;
- count or estimate the overall flock size, using binoculars, e.g. 2000 birds;
- rapidly scan through the entire flock, using a telescope and note all the species present;
- assess the relative proportions of the dominant species present, e.g. Curlew Sandpiper 60%, Little Stint 20%, etc;

Completing these steps will ensure that even if the birds now fly off, enough data will have been collected to reasonably estimate the number of birds present.

- count each individual of each species, using the telescope. Start with the most common species and work through to the least common. Count each species separately, i.e. scan through the flock repeatedly, counting all the individuals of a single species during each successive scan.

Evening roost counts: It is advisable to conduct these counts in the late afternoon, particularly the last two hours of daylight. During this period most of the roosting birds will fly into the roost site and this affords the opportunity to count them accurately. Start off by counting any birds present as soon as you arrive at the site. Once you have established the numbers and species present, scan the horizon and record numbers of species as they fly in. The count can be stopped when darkness falls as it is unlikely that many more birds will arrive. Often numbers recorded in this manner will be much higher that comparative daytime counts.

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